REMARKS

In view of the following discussion, the Applicants submit that none of the claims now pending in the application are non-enabling, anticipated, or obvious under the respective provisions of 35 U.S.C. § 112, §102, and §103. Thus, the Applicants believe that all of these claims are now in allowable form.

REJECTION OF CLAIMS UNDER 35 U.S.C. §102

The Examiner has rejected claims 1-22 as being rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No.4,807,224, issued February 21, 1989 to Naron et al. (hereinafter Naron). Specifically, the Examiner offers that Naron discloses a method of multicasting data messages to members of a multicast group comprising all the steps recited in Applicants' claim 1 by citing column 3, line 15 – column 4, line 9; column 5, lines 22-47; column 8, line 50 – column 9, line 12; column 14, line 3 – column 16, line 16; column 21, lines 1-5; and column 21, line 59 – column 22, line 6 of Naron to support his position. The rejection is respectfully traversed.

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984)(citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added). The Naron reference fails to disclose each and every element of the claimed invention, as arranged in the claim.

In response, Applicants respectfully submit that each and every one of the specific elements of claim 1 have not been disclosed in Naron nor is a method disclosed in Naron that notifies the commit servers of the assignment of a first sequence number of a first data message or commit servers sending an acknowledgment to the sequencer regarding notification of assignment of the first

sequence number to the first data message nor a step of committing the first sequence number to the first data message in response to the sequencer receiving acknowledgments of notification of the assignment of the first sequence number. Naron merely discloses that as data arrives from a source S401, it is continually broken up by a data source means and packaged. Each data packet is packaged to contain data representing sequencing data as well as information as per column 8, lines 55 – column 9, line 12. That is, there is no disclosure of one or more commit servers in Naron which subsequently perform the following steps of notifiying. There is no specific discussion of how the data packets are sent through Naron's system so much as it is taken for granted that this action is performed. Naron appears to be much more involved with guaranteeing receipt of data packets and various failure detection means to account for transmission errors.

The additional sections of Naron cited by the Examiner further support Applicants' argument that Naron is not addressing the same issues; hence, not processing data messages in the same exact manner as the subject invention. For example, the Examiner's cited section of column 3, line 15 – column 4, line 9 is a disclosure of an intermediate server that receives and holds data. Receivers must then make individual queries to the intermediate file server regarding data of interest. Data is then checked for receipt at each receiver by sending an acknowledgement back to the data source. However, such disclosure does not come close to describing the explicit steps of the method recited in claim 1 including at least the steps of

> "each data server that receives the first data message requesting the sequencer to assign a first sequence number to the first data message, the first sequence number being from a sequence of numbers allocated to the data messages, said first sequence number following all sequence numbers assigned prior to assignment of the first sequence number;

assigning the first sequence number to the first data message, in response to the sequencer receiving a first quantity of the requests to assign a first sequence number to the first data message;

notifying the commit servers of the assignment of the first sequence number to the first data message;

each of the commit servers sending to the sequencer an acknowledgment of the notification of the assignment of the first sequence number to the first data message, in response to being notified of the assignment of the first sequence number to the first data message;"

The Examiner is attempting to draw parallels or similarities between multicasting data messages with prior art steps for guaranteeing or recovering data that does not arrive at a receiver. It is respectfully submitted that these are two separate aspects in the area of technology; hence, the Examiner's analysis and recitation of the relevant portions of the cited art are either incorrect or not specific enough with regard to the subject invention to support a conclusion of anticipation.

With specific regard to the Examiner's offering of column 5, lines 22-47, it is understood that this is the Summary of the Invention section of the cited reference. From approximately lines 22-37, there is a general description of data communications system and method that broadcasts data packets from a source to a number of remote receivers; however, there is no specific discussion or description of the specific steps recited in claim 1 that include

"each data server that receives the first data message requesting the sequencer to assign a first sequence number to the first data message, the first sequence number being from a sequence of numbers allocated to the data messages, said first

sequence number following all sequence numbers assigned prior to assignment of the first sequence number;

assigning the first sequence number to the first data message, in response to the sequencer receiving a first quantity of the requests to assign a first sequence number to the first data message;

notifying the commit servers of the assignment of the first sequence number to the first data message;

each of the commit servers sending to the sequencer an acknowledgment of the notification of the assignment of the first sequence number to the first data message, in response to being notified of the assignment of the first sequence number to the first data message;"

The remaining portion of that particular cited area (lines 38-47) discuss failure detection means and data recovery means which should not be used to compare to the subject invention as it is outside the scope of same and still does not provide at least the steps of recited claim 1 presented above.

The Examiner then cites column 8, line 50 – column 9, line 12 to further support his position. In response, it is respectfully submitted that this portion of the reference discusses merely the existence of data packet sequencing, (e.g., timestamps, consecutive sequence numbering and the like) but does not discuss a framework or reference to which this sequencing takes place. Specifically, the reference indicates "... each respective data packet is packaged to contain data representing data packet sequencing data in addition to data corresponding to an information field." However, this teaches absolutely nothing with regard to when such numbers are assigned and how they are assigned and, more specifically, does not teach or disclose the cited steps for multicasting data messages in accordance with claim 1 (i.e., at least the aforementioned steps in the preceding two paragraphs).

The Examiner then moves on to column 14, lines 3-16 to look for further support to sustain an anticipation rejection. However, upon careful review of columns 14, 15 and a portion of 16, it is respectfully submitted that this portion of the reference all relates to lost data packet recovery and has nothing to do with the steps recited for multicasting data messages in accordance with claim 1. It has been presented earlier in prosecution and again earlier in this paper that the cited reference is focused more heavily on data recovery and the steps necessary to do same than the actual multicasting of said data messages prior to their potential loss and subsequent recovery.

The Examiner then moves on to column 21, lines 1-5 which again presents disclosure that data packet sequence numbers exist in Naron's system. However, this offering is merely repetitive of earlier disclosure of data sequencing number usage but is still too general in its presentation to effectively substantiate a position of anticipation with regards to how these numbers are assigned to data packets and at what point (and based on what prior actions occur between a data server and a sequencer as recited in claim 1).

Finally, turning to the Examiner's offering of column 21, line 59 – column 22, line 6, this passage presents solely the existence of a few blocks of information that exists in a particular data packet. Such blocks include "message ID," "time of message," as well as the message itself. The message can be sent between any two or more devices in Naron's communication system and "receipt and transmission of message information is typically managed at each of the respective receivers by communication means 902." Such a disclosure is far too general to read upon the specific steps of managing and multicasting data messages in accordance with claim 1. Therefore, it is respectfully submitted that in each instance of the Examiner's offerings of proof that Naron presents sufficient information or disclosure to anticipate the subject invention, these offerings plainly fall short because either they are far too general in their description to accurately and exactly read upon the recited steps of the method (which is a requirement of the statute) or present issues that are not directly

involved with the subject method (the data recovery portions cited by the Examiner of Naron). Therefore, it is respectfully submitted that claim 1 is patentable under the statute.

In the Final Office Action, the Examiner has reiterated his arguments with respect to claims 2-6. In response, and as presented earlier in prosecution, claims 2-6 depend, either directly or indirectly, from independent claim 1 and recite additional features thereof. As such, and for at least the same reasons discussed above, the Applicants submit that these dependent claims also fully satisfy the requirements under 35 U.S.C. § 102 and are patentable thereunder. Therefore, the Applicants respectfully request that the rejection be withdrawn.

Additionally, the Examiner has also rejected claim 7 under the provisions of 35 U.S.C. § 102(b) indicating that claim 7 contains the same limitations as recited in claim 1. Arguments refuting the Examiner's conclusion of anticipation with regards to claim 1 has been presented above. It is respectfully submitted that the same argument holds true for claim 7 as this claim also contains steps involving the commit servers being notified and subsequently acknowledging notification which is not taught, disclosed or suggested by Naron. Additionally, the Examiner is invited to review the prior filed Office Action Response and, in particular, the Amendments to the Claims section where the present set of claims is easily viewed. The Examiner indicates that claim 7 contains the same limitations as claim 1. Upon inspection of claim 1 on pages 3 and 4 of the Office Action Response and claim 7 on pages 6 and 7 of the Office Action Response, one can easily see that the same limitations do not exist in the claims. Specifically, claim 1 contains the step of "transmitting a first data message to the members of the multicast group" whereas claim 7 does not. Accordingly, it is respectfully submitted that the same limitations do not exist in each of the above-cited claims. Accordingly, claim 7 is also patentable under the statute.

The Examiner also reiterates his rejection of claim 8 as containing the same limitations as the combination of claims 5 and 6. This rejection is respectfully traversed. Specifically, claim 8 depends directly from claim 7 which,

at the very least, does not include a step of "transmitting a first data message to the members of the multicast group." The combination of claims 5 and 6 depend from claim 2 and claim 2 depends directly from claim 1 which does include the step of "transmitting a first data message to the members of the multicast group." Therefore, it is respectfully submitted that claim 8 does not contain the same limitations as the combination of claims 5 and 6.

The Examiner has also reiterated his rejection with respect to claim 12 as containing the same limitations as claim 6. The rejection is respectfully traversed. Specifically, claim 6 includes, among other things, the steps "for garbage collection; and storing said first sequence number in stable storage." In comparison, claim 12 recites a step only of periodic message consolidation. While claim 12 does depend directly upon claim 8 (which is also directly dependent upon claim 7), neither of claims 7 or 8 disclose features of garbage collection, in the manner claimed in claim 6. Therefore, it is respectfully submitted that claim 12 does not contain the same limitations as recited in claim 6.

In the Final Office Action, the Examiner reiterates his arguments with respect to claims 9, 11, 13, 14, 16 and 17 as found in the earlier Office Action. In response, it has been presented earlier in prosecution history and repeated here that these claims are directly or indirectly dependent upon independent claim 7 and arguments against anticipation of claim 7 in view of the cited reference Naron has been presented earlier. Therefore, it is respectfully submitted that these claims also satisfy the requirements of 35 U.S.C. § 102 and are patentable thereunder for at least the same reasons as presented above and earlier in the prosecution history with respect to independent claim 7. Therefore, the Applicants respectfully request that the rejection be withdrawn.

In the Final Office Action, the Examiner reiterates his rejection of claim 10 as containing the same limitations as claim 9. The rejection is respectfully traversed. Specifically, claim 9 recites (among other things) the limitation of

> "if said each member of the multicast group does not know a first message ID, said first message ID being associated with a first data message, a first sequence number within one of said gaps having been previously committed to said first data message, said each member of the multicast group querying one of said commit servers to obtain said first message ID;"

It is respectfully submitted that claim 10 does not contain this limitation; accordingly, there is absolutely no basis for this rejection.

In the Final Office Action, the Examiner reiterates his argument with respect to claim 15 as containing the same limitations as claim 16. In response, this particular rejection has been addressed in detail by the Applicants on pages 14-16 of the June 12, 2003 Response. Therefore, Applicants redirects the Examiner to the details provided in that earlier Response with a specific indication that in either instance of claims 15 or 16 it has been shown that there are not the same limitations in these claims; hence, withdrawal of this rejection is respectfully requested.

In the Final Office Action, the Examiner rejects claim 18 as containing the same limitations as recited in claim 17. In response, Applicants respectfully traverse this rejection. Specifically, claim 17 depends directly from claim 8, whereas claim 18 depends directly from claim 16. While the specific recitations of the specific new features of claims 17 and 18 are identical with respect to the data message bearing corresponding logical timestamps and the like, the dependencies of claim 17 and 18 are different. Therefore, overall, claims 17 and 18 do not contain the same limitations. The dependencies of claims 17 and 18 are different such that different features are incorporated into the totality of the inventions recited in claim 17 and 18, respectively.

The Examiner rejects claims 19, 20 and 21 based on the alleged anticipatory teachings of Naron at column 14, line 64 – column 15, line 12 (with respect to claim 19), column 11, lines 5-16 (with respect to claim 20) and column

19, lines 21-38 (with respect to claim 21). In response, it is respectfully submitted that claims 19, 20 and 21 depend indirectly upon claim 7 and, for the reasons cited above, claim 7 is not anticipated by the teachings of Naron. Accordingly, these dependent claims are patentable under statute for at least the same reasons.

The Examiner rejects claim 22 in the Final Office Action as containing the same limitations as claim 21. This rejection is respectfully traversed. The Examiner appears to be using the same logic with respect to the rejection of claims 21 and 22 as he has above with respect to claim 17 and 18. Specifically, the specific recitation of the new limitation presented in claims 21 and 22 is identical; however, the dependencies of claims 21 and 22 are distinctly different. Specifically, claim 22 depends from claim 16 and claim 22 depends from claim 8. Therefore, claims 21 and 22 in totality do not contain the same limitations as they define different aspects of the invention.

CONCLUSION

Thus, the Applicants submit that claims 1-22 are in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.